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6 FEB 1963

MEMORANDUM FOR : Secretary of Defense  
                           Director of Central Intelligence

SUBJECT : Q-12 Ramjet Drone

1. Mr. C.L. Johnson of Lockheed Aircraft Corporation completed a preliminary design feasibility study of a Q-12 ramjet drone reconnaissance system. This included full-scale model [redacted] tests and some wind tunnel tests using a model Q-12 drone mounted on a model A-12 launch vehicle. Additional tests are still in progress. In addition, four camera contractors who were invited to submit proposals completed studies concerning a camera configuration for a Q-12 reconnaissance system. The reports have been reviewed by the Deputy Director (Research), CIA, and the Director, National Reconnaissance Organization, and the Q-12 ramjet drone reconnaissance system is deemed to be technically feasible.

2. The Q-12 ramjet drone is an unmanned reconnaissance vehicle utilizing a ramjet engine [redacted]

[redacted] The drone will be air-launched from a modified A-12 Lockheed aircraft. The drone will have a range of 3,000 miles, speed of Mach 3.3 and an operational altitude in excess of 85,000 feet. In order to reduce vulnerability, a higher speed and altitude would be desirable but not feasible with presently-developed reliable engines. Upon completion of a mission the camera payload and inertial navigation system will be ejected and an air-snatch recovery employed, similar to the DISCOVERER program system.

[redacted] [redacted] The most promising camera proposal for the Q-12 drone submitted by Mycon Manufacturing Company forecasts an achievable ground resolution design goal of 1-1/2 feet to 2 feet at operational altitudes.

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[REDACTED]  
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3. The present preliminary Lockheed proposal for twenty drone aircraft, including engines and modification costs for two A-12 launch aircraft, will cost a minimum of [REDACTED]. The four camera proposals have been evaluated, and it is believed the Eycan proposal is the most satisfactory from the point of view of cost, time scale and technical feasibility and quality. The preliminary estimate for ten such cameras is [REDACTED]. The present approved National Reconnaissance Program has [REDACTED] in FY 1963 and [REDACTED] in FY 1964 which should be adequate to handle this program. In light of all these facts, it is recommended that -

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- a. approval be given for proceeding with the Q-12 drone program as described above; and
- b. the DOD program for advanced ramjet development should be exploited with the aim of providing [REDACTED] performance for possible follow-on vehicles.
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Signed

MERRITT SCOVILLE, JR.  
Deputy Director  
(Research)

CONCUR:

Signed  
Director, National Reconnaissance Organization

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John Parangosky :C/DD/OSA:  (1 Feb 1963)

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